



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/573,301	03/22/2006	Kazuya Kaida	65140(70551)	9567
21874 7590 03/30/2009 EDWARDS ANGELL PALMER & DODGE LLP P.O. BOX 55874 BOSTON, MA 02205				
EXAMINER KIM, RICHARD H				
ART UNIT 2871		PAPER NUMBER		
MAIL DATE 03/30/2009		DELIVERY MODE PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/573,301

Applicant(s)

KAIDA ET AL.

Examiner

RICHARD H. KIM

Art Unit

2871

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 March 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) 6-13 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 March 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-8508)
- Paper No(s)/Mail Date 3/22/06, 9/20/07
- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date _____
- 5) ☐ Notice of Inventor's Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Election/Restrictions

1. Claim 7-13 withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 3/12/09. Furthermore, claim 6 is also withdrawn as being drawn to a nonelected invention. Claim 6 states that the releasing step is performed after the sealant arranging step. In the reply filed 3/12/09, Applicant elected species I, which is drawn to an invention wherein the releasing step is performed before the sealant arranging step. Therefore, claim 6 is hereby withdrawn.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-5 rejected under 35 U.S.C. 103(a) as being unpatentable over Lee et al. (US 2003/0147039 A1) in view of Shin et al. (US 6,793,987 B2) and Yawata et al. (US 6,922,229 B2).

3. Referring to claims 1 and 2, Lee discloses a device comprising a sealant arranging step of arranging a sealant on a main surface of one of or each of two substrate to be bonded to each other (19S), a liquid crystal dropping step of dropping liquid crystal on one of the two substrate (14S); and a bonding step of bonding the two substrate to each other (20S). However, the

reference does not disclose that the method further includes prior to the sealant arranging step, a deaerating step of arranging in a pressure-reduced atmosphere at least a substrate on which the sealant is to be arranged out of the two substrates; and to be performed prior to the bonding step, a releasing step of releasing the pressure-reduced atmosphere by an inert gas prior to the sealant arranging step.

4. Shin et al. discloses a process performed prior to a sealant arranging step, a deaerating step of arranging in a pressure-reduced atmosphere at least a substrate on which the sealant is to be arranged out of the two substrates (col. 8, line 6). Yawata et al. discloses a method comprising a releasing step of releasing a pressure-reduced atmosphere by inert gas (col. 5, lines 8-11).

5. It would have been obvious to one having ordinary skill in the art at the time the invention was made to employ a process performed prior to a sealant arranging step, a deaerating step of arranging in a pressure-reduced atmosphere at least a substrate on which the sealant is to be arranged out of the two substrates since one would be motivated to create an alignment film with excellent photoalignment characteristics (col. 8, line 35). Furthermore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to employ a releasing step of releasing a pressure-reduced atmosphere by inert gas prior to the sealant arranging step since one would be motivated to prevent contamination.

6. Referring to claim 3, Lee discloses that the sealant arranging step (19s) is performed in a released atmosphere.

7. Referring to claim 4, Lee, Shin and Yawata disclose the method previously recited, but fail to disclose that the sealant arranging step is performed within 30 minutes after the releasing step.
8. It would have been obvious so to one having ordinary skill in the art at the time the invention was made for the sealant arranging to be performed within 30 minutes after the releasing step since one would be motivated to minimize the time between steps in order to improve manufacturing efficiency. Furthermore, determining the optimum time in between steps is a result effective variable and would require routine skill in the art.
9. Referring to 5, Lee, Shin and Yawata disclose the method previously recited, but does not disclose that the deaerating step includes a step of arranging the two substrates together in the pressure-reduced atmosphere.
10. Shin, however, discloses that the deaerating step is applied to at least one substrate (col. 8, line 22), which would indicate that both substrate can be subjected to the deaerating substrate.
11. Therefore, it would have been obvious to one having ordinary skill in the art to arrange the two substrates together in the pressure-reduced atmosphere in order to minimize the number of steps required by deaerating the substrates together in one step.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to RICHARD H. KIM whose telephone number is (571)272-2294. The examiner can normally be reached on 9:00-6:30 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Nelms can be reached on (571)272-1787. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Richard H Kim/
Primary Examiner, Art Unit 2871